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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,950	02/14/2002	Pascal Agin	Q68411	8715

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SUGHRUE MION, PLLC
Suite 800
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER

PEREZ, JULIO R

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/073,950	AGIN, PASCAL	
	Examiner	Art Unit	
	Julio R Perez	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/23/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin (6690938) in view of admitted prior art.

Regarding claim 7, Chin discloses a load control and/or call admission control method for use in a mobile radio system in which a first entity manages radio resources and corresponding processing resources, if the capacity credit in the uplink and/or downlink direction falls below a given first threshold, any new call is rejected until the capacity credit again above a given second threshold greater than or equal to the first threshold (col. 4, lines 29-44; col. 5, lines 60-67; col. 6, lines 1-13; col. 7, lines 13-35; col. 11, lines 64-67; col. 12, lines 10-26, a number of in-use traffic channels are compared with a number of total traffic channels and provides the signal when a difference between the number of total traffic channels and the number of in-use traffic channels is less than a predetermined threshold. Thus, providing indication that channels are blocked and therefore unable to receive further calls because the maximum capacity of the entity has been fulfilled).

Chin fails to specifically disclose the second entity signals to the first entity its global processing capacity, capacity credit, and the consumption law, or quantity of said

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global processing capacity, or cost, as a function of the necessary resources, the first entity updates the capacity credit on the basis of the consumption law.

However, as admitted by applicant such process is known (See page 6, lines 1-31 of the specification).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the system as taught by Chin with updating of remaining processing capacity and overall processing capacity because it would provide the system with a given service that will have an average resource impact, which in current communication system is considered to only be dependent on the actual service, and will further provide the system with a cost function, which is general indication of the impact on the communication system of supporting the communication need of the subscriber. That is, when a specific subscriber unit accesses the communication system and requires a service, the radio communication system will evaluate the resource impact in this specific case. That will include consideration of the actual propagation conditions, the actual location of the subscriber unit, the performance of the specific subscriber unit and other relevant parameters. The resource impact is considered therefore in relation to the resource impact used in derivation of a cost function. Furthermore, the cost function is used for determining whether the communication need is supported by the communication system. And, in this way, the network capacity can be optimized by allocating resource depending on the actual resource impact of supporting the communication need.

Regarding claim 8, Chin discloses the first entity includes means for rejecting any new call if the uplink and/or downlink capacity credit falls below a given first threshold until the capacity credit is again above a given second threshold greater than or equal to the first threshold (col. 4, lines 29-44; col. 5, lines 60-67; col. 6, lines 1-13; col. 7, lines 13-35; col. 11, lines 64-67; col. 12, lines 10-26, a number of in-use traffic channels are compared with a number of total traffic channels and provides the signal when a difference between the number of total traffic channels and the number of in-use traffic channels is less than a predetermined threshold. Thus, providing indication that channels are blocked and therefore unable to receive further calls because the maximum capacity of the entity has been fulfilled).

Regarding claim 9, Chin discloses, wherein said first entity is a base station controller (Fig. 2, ref. 50, the system depicts a BSC within a MSC).

Regarding claim 10, Chin discloses, wherein said second entity is a base station (Fig. 2, ref. 18, the system comprises a base station that communicates to the BSC to indicate its status in terms to its capacity means).

Regarding claim 11, Chin discloses means for rejecting any new call if the uplink and/or downlink capacity credit falls below a given first threshold until the capacity credit is again above a given second threshold greater than or equal the first threshold (col. 4, lines 29-44; col. 5, lines 60-67; col. 6, lines 1-13; col. 7, lines 13-35; col. 11, lines 64-67; col. 12, lines 10-26; Fig. 2, the BSC possesses the means to accept or reject consequent calls depending on its traffic capacity. Further, a number of in-use traffic channels are compared with a number of total traffic channels and provides the signal

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when a difference between the number of total traffic channels and the number of in-use traffic channels is less than a predetermined threshold. Thus, providing indication that channels are blocked and therefore unable to receive further calls because the maximum capacity of the entity has been fulfilled).

3. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin (6690938) in view of admitted prior art.

Regarding claim 12, Chin discloses a load control and/or call admission control method for use in a mobile radio system in which a first entity manages radio resources and corresponding processing resources, and an overload control procedure is initiated if the capacity credit falls below a given threshold (col. 4, lines 29-44; col. 5, lines 60-67; col. 6, lines 1-13; col. 7, lines 13-35; col. 11, lines 64-67; col. 12, lines 10-26, a traffic or overload control process is performed when a number of in-use traffic channels are compared with a number of total traffic channels and provides the signal when a difference between the number of total traffic channels and the number of in-use traffic channels is less than a predetermined threshold. Thus, providing indication that channels are blocked and therefore unable to receive further calls because the maximum capacity of the entity has been fulfilled).

Chin discloses fails to specifically disclose the second entity signals the first entity its global processing capacity, or capacity credit, and the consumption law, quantity of said global processing capacity, or cost, as a function of the resources necessary, the first entity updates the capacity credit on the basis of the consumption law.

However, as admitted by applicant such process is known (See page 6, lines 1-31 of the specification).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the system as taught by Chin with updating of remaining processing capacity and overall processing capacity because it would provide the system with a given service that will have an average resource impact, which in current communication system is considered to only be dependent on the actual service, and will further provide the system with a cost function, which is general indication of the impact on the communication system of supporting the communication need of the subscriber. That is, when a specific subscriber unit accesses the communication system and requires a service, the radio communication system will evaluate the resource impact in this specific case. That will include consideration of the actual propagation conditions, the actual location of the subscriber unit, the performance of the specific subscriber unit and other relevant parameters. The resource impact is considered therefore in relation to the resource impact used in derivation of a cost function. Furthermore, the cost function is used for determining whether the communication need is supported by the communication system. And, in this way, the network capacity can be optimized by allocating resource depending on the actual resource impact of supporting the communication need.

Regarding claim 13, Chin discloses, in which system: the first entity includes means for initiating an overload control procedure if the capacity credit falls below a given threshold (col. 4, lines 29-44; col. 5, lines 60-67; col. 6, lines 1-13; col. 7, lines 13-

35; col. 11, lines 64-67; col. 12, lines 10-26, a traffic or overload control process is performed when a number of in-use traffic channels are compared with a number of total traffic channels and provides the signal when a difference between the number of total traffic channels and the number of in-use traffic channels is less than a predetermined threshold. Thus, providing indication that channels are blocked and therefore unable to receive further calls because the maximum capacity of the entity has been fulfilled).

Regarding claim 14, Chin discloses, wherein said first entity is a base station controller (Fig. 2, ref. 50, the system depicts a BSC within a MSC).

Regarding claim 15, Chin discloses, wherein said second entity is a base station (Fig. 2, ref. 18, the system comprises a base station that communicates to the BSC to indicate its status in terms to its capacity means).

Regarding claim 16, Chin discloses means for initiating an overload control procedure if the capacity credit falls below a given threshold (col. 4, lines 29-44; col. 5, lines 60-67; col. 6, lines 1-13; col. 7, lines 13-35; col. 11, lines 64-67; col. 12, lines 10-26; Fig. 2, the BSC possesses the means to accept or reject consequent calls depending on its traffic capacity. Further, a number of in-use traffic channels are compared with a number of total traffic channels and provides the signal when a difference between the number of total traffic channels and the number of in-use traffic channels is less than a predetermined threshold. Thus, providing indication that channels are blocked and therefore unable to receive further calls because the maximum capacity of the entity has been fulfilled).

Allowable Subject Matter

4. Claims 1-6 are allowed.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the art with respect to managing resources in mobile systems.

US Pat. No. 6374112 to Widegreen et al.	Resource allocation in mobile comunciations
US Pat. No. 6487415 to Eibling et al.	Initiating call blocking based on pilot fraction
US Pat. No. 6507567 to Wilards	Efficient handling of connections in mobile communciations
US Pat. No. 6701149 to Sen et al.	Realotime delay critical services in G3
US Pat. No. 6791968 to Kotzin	Communicating different information streams
US Pat. No. 6760303 to Brouwer	Channel switching based on cell load
US Pat. No. 6792273 to Tellingner et al.	Resource reservation in a mobile radio system

US Pat. No. 6807419 to Laiho et al.

SRNS relocation in UMTS
network

US Pat. No. 6278882 to Choi

Call control method in
base station of CDMA

US Pat. No. 6782263 to Peltola et al.

Chanel allocation method
in cellular radio network

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio R Perez whose telephone number is (703) 305-8637. The examiner can normally be reached on 7:00 - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 703-308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JP

11/20/04



DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600